

CH2M HILL Hanford Group, Inc.		USQ #08-0822-S	
CHEMICAL MANAGEMENT PROCESS	Manual	ESHQ	
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[Ownership matrix](#)

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1.0 PURPOSE AND SCOPE

(7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.6, 7.1.7, 7.1.8, 7.1.9, 7.1.10, 7.1.11, 7.1.12, 7.1.13, 7.1.14)

This procedure describes the processes that are used to acquire, receive, store, track, transport, and disposition chemicals. The purpose of this procedure is to protect the worker, general public, and the environment. This procedure is used to ensure compliance with applicable regulations and statutes, as well as to comply with the requirements established by [TFC-PLN-58](#), [TFC-ESHQ-S_IH-C-02](#) and this procedure.

This procedure applies to all Tank Farm Contractor (TFC) personnel and subcontractors involved in the procurement, receipt, storage, inventory, justification, or disposition of chemicals. For the purpose of this procedure, chemicals are defined as any element, chemical compound, or product containing elements and/or compounds that are hazardous according to the definitions of the Occupational Safety and Health Administration (OSHA), the National Fire Protection Association (NFPA), or the Uniform Fire Code (UFC).

Chemicals in laboratories have different and additional regulatory drivers in some areas of chemical management. [ATS-310, 4.05](#) and [ATS-LO-150-063](#) are the primary sources for implementing laboratory specific requirements at the 222-S Laboratory Complex,

Use of hazardous chemicals is outside the scope of this procedure. [TFC-ESHQ-S_IH-C-02](#) addresses requirements, training and controls needed when using and working with chemicals. The requirements for the laboratory use of hazardous chemicals are addressed in [ATS-310, 4.05](#). Work packages, job hazard analyses, and task-specific procedures address specific requirements that must be implemented when utilizing chemicals.

The transportation of hazardous chemicals and/or materials is outside the scope of this procedure. Hazardous chemicals and/or materials are shipped in accordance with [TFC-PLN-58](#). A certified hazardous material shipper is contacted when transporting or shipping of hazardous chemicals and/or materials.

2.0 IMPLEMENTATION

This procedure is effective on the date shown in the header.

3.0 RESPONSIBILITIES

3.1 Director of Site Services

Approves and certifies any CH2M HILL chemical management reports that are necessary to meet regulatory requirements.

3.2 Managers/Line Managers

(7.1.1, 7.1.3, 7.1.11, 7.1.13)

- Ensure chemical management operations, including acquisitions, use, storage, transportation, and final disposition, in compliance with the requirements of [TFC-PLN-58](#), [TFC-ESHQ-S_IH-C-02](#), or [ATS-310, 4.05](#) and this procedure.
- Promote the selection and use of chemicals that minimize hazards (especially where non-toxic, non-hazardous materials are available).

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- Ensure personnel handling the chemicals are trained in accordance with the applicable OSHA Standards and CH2M HILL training requirements in accordance with [TFC-PLN-61](#).
- Ensure only trained, licensed, and qualified personnel transport hazardous chemicals from one storage location to another in accordance with Department of Transportation regulations.

3.3 Lead, Chemical Management Program

(7.1.1, 7.1.4, 7.1.5, 7.1.8)

- Ensure the chemical inventory data, data certifications, and contractor certifications (as applicable) that are submitted in support of the Hanford Site efforts to prepare the following EPCRA reports are managed as record material:
 - Emergency Planning Notification as required by 40 CFR 355
 - Tier II Emergency and Hazardous Chemical Inventory report as required by 40 CFR 370, and
 - Toxic Chemical Release Inventory report as required by 40 CFR 372.
- Ensure new chemicals are screened per the requirements of Department of Energy (DOE) Order 151.1C
- Assist in correcting problems or issues with chemical management.

3.4 All Employees

(7.1.1, 7.1.2, 7.1.3, 7.1.14)

- Before using chemicals, read the manufacturer's label and Material Safety Data Sheet (MSDS) and note the warnings.
- Use the Tank Farm Material Services System (TFMSS) to request materials that have an MSDS sheet in accordance with Section 4.0.
- Ensure hazardous chemicals are stored, segregated, and rotated in accordance with the recommendations of the manufacturer, or as indicated by the accepted industrial practices.
- When moving chemicals to a new storage location, follow the steps outlined in Section 4.3.3.
- Follow the specific precautions in Section 4.3.2 when storing or handling time-sensitive chemicals.

3.5 Industrial Hygiene

(7.1.1, 7.1.8, 7.1.13)

- Answer questions regarding chemical constituents and substitutions.
- Perform chemical hazard assessments, as applicable.

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- Assist in identifying appropriate storage locations including any needed segregation for chemicals.
- Assist in performing chemical screenings to meet the requirements of DOE O 151.1C, as requested.
- Assist in identifying and implementing appropriate exposure controls.

3.6 Emergency Management (7.1.8, 7.1.9, 7.1.14)

As applicable, perform emergency preparedness hazard assessment analyses.

3.7 Waste Services (7.1.10, 7.1.11, 7.1.14)

- Assist in identifying appropriate disposition pathways for both used and unused forms of a chemical.
- As applicable, answer questions regarding planning for final disposition of chemicals.

3.8 Engineering (7.1.9)

As applicable, answer questions related to ensuring incoming quantities of chemicals will be allowed within a facility's safety basis envelope.

3.9 Material Coordinators (7.1.10, 7.1.11)

- Process requests for chemicals in accordance with [TFC-BSM-CP CPR-C-01](#) and [TFC-BSM-CP CPR-C-06](#).
- If available, provide the planner/requestor with information about environmentally preferable alternatives for requested chemicals and ensure items subject to requirements for recycled/recovered materials are identified and addressed per [TFC-BSM-CP CPR-C-05](#).
- When receiving chemicals, follow the steps outlined in Section 4.2 of this procedure and any steps noted in the Special Instructions section of the Material Request or Bill of Material (MR/BOM).

4.0 PROCEDURE (7.1.1, 7.1.3, 7.1.4, 7.1.5, 7.1.6)

Chemicals that are managed by this procedure include, as a minimum:

- Materials in quantities subject to the Emergency Preparedness and Community Right-to-Know Act (EPCRA)
- Materials required to be tracked by management, and

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- Materials defined as hazardous by Occupational Safety and Health Act (OSHA), National Fire Protection Act (NFPA), or the Uniform Fire Code (UFC).

This procedure does not apply to the following categories of materials:

- Hazardous wastes/substances regulated by the Environmental Protection Agency (EPA), which includes the chemical and radiological wastes in tank farms
- Manufactured articles that will not release a hazardous chemical under normal or anticipated conditions of use such as circuit boards, light bulbs, thermometers, lead shielding, and sealed alkaline batteries
- Management may direct that material safety data sheets (MSDS) for these articles be obtained from the manufacturer or distributor as available
- Personal use products such as hand soap, sun screen, shampoo, cosmetics, insect repellent, and medicines
- Potable and non-potable water.

Certain categories of chemicals are exempt from some requirements addressed by this procedure but may be regulated by others. In accordance with DOE guidelines, these chemicals will be managed in accordance with the most conservative requirement. Determining factors can include specific hazard(s), quantity, and how the material is used. Contact the chemical management Point of Contact (POC) with questions about specific determinations. Some of these “gray area” products include:

- Consumer packaged cleaning products
- Consumer packaged office supplies such as markers, pens, stamp pads, printer toner, and white board cleaner
- Gasoline and/or diesel fuel
- Chemicals that are identified as non-hazardous in accordance with [29 CFR 1910.1200](#), by the manufacturer’s MSDS.

Some chemicals have higher than normal hazards. Additional controls and/or training may apply when storing, handling, or using these chemicals. Such chemicals can include:

- Highly volatile organic chemicals (e.g., methyl ethyl ketone or vinyl cement)
- Highly toxic chemicals (chemicals noted with a U.S. Department of Transportation (DOT) Poison label or a DOT Inhalation Hazard label)
- Highly corrosive chemicals (e.g., sodium hydroxide or muriatic acid)
- Reactive and shock sensitive chemicals (e.g., organic peroxide formers).

The Hanford Chemical Inventory Tracking System (CITS) database is used to provide a central location for chemical management information.

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To ensure all chemicals are approved prior to acceptance and use at Tank Farm Contractor facilities, procurement of chemicals shall include the actual purchasing of chemicals or any other means of acquiring chemicals such as borrowing from another Hanford facility or requesting free samples from vendors.

Compressed gases are managed in accordance with [TFC-ESHQ-S-STD-25](#).

Flammable and combustible liquids are managed in accordance with [TFC-ESHQ-FP-STD-03](#).

At the 222-S Laboratory Complex, the specific requirements for acquisition, storage, labeling, use, handling, transportation, and final disposition of hazardous chemicals shall be in accordance with [ATS-LO-150-063](#).

WARNING:

A broken or leaking container should be treated as a Hazardous Material Spill in accordance with facility emergency response procedures. Secure the area and notify the SOM and/or BED.

NOTE 1: This procedure is written to provide instructions in performing chemical management activities. Procedure steps may be performed out of sequence, as necessary.

NOTE 2: Unless directed differently, notifications required in the performance of this procedure may be made by e-mail, memo, or other suitable written or electronic method. Information may be sent to the Tank Farm Chemical Management POC through:

- Email at [^Tank Farm Chemical Management](#)
- Plant Mail: Tank Farm Chemical Management, H6-07

See [Figure 1](#) for procedure flowchart.

4.1 Chemical Acquisition

(7.1.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.8, 7.1.9, 7.1.10, 7.1.11, 7.1.13, 7.1.14)

NOTE 1: If a chemical is being acquired through a means other than purchasing, at a minimum, steps 2, 3, 7, 8, and 9 of this section are to be completed prior to obtaining the material for use.

- | | |
|-----------|--|
| Requestor | <ol style="list-style-type: none"> 1. Determine the specific chemicals and the minimum quantity required for use in the near term (e.g., six months or less; do not stockpile material inventories). 2. If ordering flammable or combustible liquids, refer to procedure TFC-ESHQ-FP-STD-03 to ensure the requested quantity is within allowed limits for the intended storage location. |
| Requestor | <ol style="list-style-type: none"> 3. Ensure an appropriate storage location has been identified for the chemical in accordance with Section 4.3 of this procedure. Contact Industrial Hygiene for assistance as needed. |

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4. Initiate a Material Request within the Tank Farm Material Management System (TFMSS) in accordance with [TFC-BSM-CP CPR-C-01](#) and [TFC-BSM-CP CPR-C-06](#).

5. List the Hanford MSDS number for each chemical in the request in the comments field of the BOM/MR, if known.

NOTE: If an approved MSDS is not on file with the Fluor Hanford (FH) MSDS administrator or if the existing MSDS is more than three years old, the request shall not be approved until a current MSDS has been submitted to the FH MSDS administrator.

6. If the requested chemical is to replace material that is currently managed as a “fixed inventory item,” indicate this in the comments section of the BOM/MR.

NOTE: See Section 4.3.4 for information on “fixed inventory items.”

7. If the request is for a new chemical, contact your Industrial Hygiene Representative to ensure the necessary hazard assessments are performed in accordance with [TFC-ESHQ-S_IH-C-02](#) or [ATS-310, 4.05](#). Laboratory personnel may also contact the Chemical Hygiene Officer.

Examples of “new” chemicals include:

- A chemical that has not been used in the facility within the last three years
- Newly increased concentrations or increased quantities of existing chemicals
- A new application or use of an existing chemical.

NOTE: Lower concentrations or a new manufacturer of an existing chemical are not “new” chemicals.

8. If the material being requested is regulated as a carcinogen, work with your industrial hygiene representative to ensure the required written procurement/use justification is submitted in accordance with [TFC-ESHQ-S_IH-C-02](#) or [ATS-310, 4.05](#). Laboratory personnel may also contact the Chemical Hygiene Officer.

Chemical
Management POC

9. Initiate procurement review using the Chemical Management POC Approval Checklist. As needed, return the MR/BOM to the requestor for modification or termination (e.g., an acceptable environmentally preferred alternative was identified or material meeting the user’s criteria is available through the on-site inventory).

- Chemical Management POC
10. Complete the Chemical Management POC Approval Checklist to determine if applicable requirements have been addressed and if the material being requested will be tracked as a chemical in CITS.
 - a. If the chemical will be tracked go to step 11.
 - b. If the chemical will not be tracked, note that the chemical does not require barcoding in the Special Instructions section of the MR/BOM and approve the request.
 11. As requested, determine if the chemical is suitable for tracking as a “fixed inventory item” in accordance with Section 4.3.4.
 - a. If the chemical will be managed as a “fixed inventory item”, then note “Fixed inventory item, no barcode required” in the Special Instructions section of the BOM/MR.
 - b. If individual container tracking is required, then note “Chemical container tracking required, barcode individual containers” in the Special Instructions section of the BOM/MR.
 12. Once the chemical tracking determination has been completed and tracking instructions have been entered in the Special Instructions section of the MR/BOM, approve or return the BOM/MR in accordance with [TFC-BSM-CP CPR-C-01](#) and [TFC-BSM-CP CPR-C-06](#).

4.2 Receiving Hazardous Materials

(7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.6, 7.1.8, 7.1.9, 7.1.14)

CAUTION: When receiving hazardous materials, be alert to unexpected chemical hazards resulting from broken or leaking containers. A broken or leaking container should be treated as a Hazardous Material Spill in accordance with facility emergency response procedures.

- Materials
1. Receive and verify shipment is a material ordered per [TFC-BSM-CP CPR-C-18](#).
 2. Check BOM/MR “Special Instructions” to determine if item is exempt from individual container barcoding.
 - a. If the item is exempt, proceed to step 5 of this subsection.
 - b. If the item is not exempt, contact the Chemical Management POC to have the containers barcoded.
- Chemical Management POC
3. Attach barcode label to a clean, dry, durable container surface.



Barcode Label

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4. Obtain the following information:

- Barcode number
- Product name
- Manufacturer's product or catalog code
- Hanford MSDS#
- Container size (e.g., 1-qt, 3-oz, 2-liter, 225-cft)
- Container type (e.g., can/metal, bottle/plastic, can/aerosol)
- Date received.

Materials

5. Once barcoded (as applicable), turn material over to requesting organization.

Chemical
Custodian or
Requestor

6. If an MSDS is not on file with the MSDS administrator, stage the material with a label that states: "No MSDS do not use" and contact Industrial Hygiene.

7. If the MSDS included with the shipment is an updated edition of the MSDS that is in the Hanford MSDS database, maintain a copy of the updated MSDS and send the original to FH MSDS administrator for inclusion in the MSDS database.

8. Ensure a copy of the MSDS with the Hanford MSDS reference number is available in accordance with [TFC-ESHQ-S_IH-C-02](#).

9. Ensure the original manufacturer/importer/distributor label meets the requirements in accordance with [TFC-ESHQ-S_IH-C-02](#)

10. Ensure material is safely stored in an appropriate location using segregation practices as needed to separate incompatible materials in accordance with [TFC-PLN-58](#), [TFC-ESHQ-FP-STD-03](#), and this procedure.

11. Rotate new product shipments with existing stock so that the oldest stock is available first.

12. As appropriate, for chemicals with a limited shelf life, ensure the date the chemical expires is printed or written on the container.

13. Provide the chemical management POC with the following information:

- Product name
- Container barcode number
- Storage location (building, room, and as applicable, cabinet).

Chemical
Management POC

14. Enter the container information as a "New Inventory Item" in CITS.

15. If the requestor is not the facility chemical custodian, ensure the facility chemical custodian is informed of the incoming chemical and its storage location.

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4.3 Storing and Tracking Chemicals

4.3.1 Chemical Storage Requirements

(7.1.1, 7.1.2, 7.1.13, 7.1.14)

1. Chemical products should be stored separately from general supplies for safety and ease of inspection.
2. New product shipments should be rotated with existing stock so that the oldest stock is available first.
3. Chemical storage locations must be kept clean and orderly. Keep all chemical/product containers tightly covered or closed when not in use.
4. Keep only the chemical inventory necessary for uninterrupted operation to reduce fire, personnel exposure, and waste disposal hazards.
5. Proper stacking procedures must be followed when storing chemicals. Containers should be stacked so that they will not be unstable or become dislodged or fall.
6. Chemical Compatibility.

All chemicals are stored according to compatibility in accordance with the recommendations of the manufacturer (e.g., MSDS, label information) or as indicated by accepted industrial practices. This includes manufacturer's recommendations for temperature and humidity control and chemicals with radioactive hazards.

Separate storage locations or specially designed cabinets (e.g., flammable storage cabinets) may be used to segregate incompatible chemicals. At a minimum, the following groups of chemicals must be stored segregated from each other:

- Flammable and combustible liquids
- Flammable and combustible solids
- Inorganic acids
- Oxidizing acids
- Organic acids
- Bases (caustics)
- Oxidizers
- Organic peroxides.

If there are any questions about chemical compatibility, contact the facility Industrial Hygiene POC. Laboratory employees can contact the Chemical Hygiene Officer or the Industrial Hygienist for chemical compatibility questions.

7. General Storage and Housekeeping.

Chemical products should be stored separately for safety and ease of inspection. Small containers are recommended to reduce storage time.

Containers should be stacked so that they will not be unstable or become dislodged, fall, and cause a spill, thus creating the possibility of personnel exposure.

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8. Flammable Chemical Storage Requirements.

Only approved containers and cabinets are used for the storage of flammable materials.

Quantities of flammable materials that may be stored in any one area are limited. Restrictions also limit the number of flammable storage cabinets that may be located in any one fire area.

Refer to [TFC-ESHQ-FP-STD-03](#) for the specific requirements that must be followed when storing and handling flammable and combustible liquids.

9. Hazardous Material Storage Facilities.

Hazardous material storage facilities are subject to additional design and operational controls in accordance with NFPA requirements. See [TFC-ESHQ-FP-STD-13](#) for requirements related to identified hazardous material storage facilities.

10. Outdoor Storage Locations.

Barrels and smaller containers of chemicals in a storage yard should be protected/shielded from direct sunlight to protect against content degradation, overheating, container bulging, or rupture.

When flammable storage cabinets are located outdoors, plugs in the vent holes should be removed to prevent accumulation of vapors.

11. Chemical Storage Tanks.

Adjacent storage tanks containing incompatible chemicals are provided with separate secondary containment structures to prevent mixing in the event of leaks or tank failure.

Chemical storage tanks containing hazardous chemicals must be cleaned when the tanks are emptied or when the chemical in the tank is changed. All requirements of [TFC-ESHQ-S_IH-C-04](#) must be addressed when tank entry is necessary.

4.3.2 Reactive and Time-Sensitive Chemicals

Reactive chemicals are those chemicals that undergo rapid and violent chemical reaction when exposed to incompatible conditions such as heat, spark, air, or light, or that undergo explosive decomposition due to impact, friction, or grinding.

Time-sensitive chemicals are those chemicals or chemical products that develop additional hazards upon prolonged storage. Chemicals that are peroxidizable or auto-polymerize are examples of time-sensitive chemicals.

Management of reactive or time-sensitive laboratory chemicals will be in accordance with [ATS-LO-150-062](#).

Some products contain stabilized formulations of reactive or time-sensitive chemicals and have reduced or delayed potential for forming hazardous by products. As a result they will have

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extended expiration dates. Products that contain stabilized formulations of reactive or time-sensitive chemicals include:

- Catalysts containing methyl ethyl ketone peroxide (MEKP)
- PVC pipe primers
- PVC cements
- Engine starting fluids.

All reactive and time-sensitive materials should be monitored and properly disposed of according to the expiration date. If these materials are left in storage long enough to form hazardous by-products, their management and disposal becomes increasingly hazardous and costly.

WARNING:

Consider any reactive or time-sensitive chemicals that appear to have altered to be highly unstable and potentially explosive. Examples of altering include but are not limited to:

- Layering (separation of a liquid into layers with a distinct boundary)
- Crystal formation
- Change in color
- Increased viscosity (indicating evaporation)
- Contamination by other materials.

If any of these signs are present, STOP and follow the warning actions below.

- a. Leave the container alone
- b. Isolate the area
- c. Inform the manager or building emergency director (BED).

The manager or building emergency director will contact Industrial Hygiene and the CH2M HILL fire department representative to arrange for proper handling and disposal.

4.3.3 Moving Containers to New Storage Locations between Tank Farm Facilities (7.1.2, 7.1.14)

Hazardous materials moved via a motor vehicle may be subject to site shipping requirements. This includes roads within site boundaries. Contact the Transportation and Packing POC for guidance as applicable.

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| All Employees | 1. Ensure that containers moved to a new location are stored in accordance with manufacturer instructions (e.g., container labels, MSDS). |
|---------------|---|

NOTE: To help maintain the accuracy of the chemical inventory, employees are encouraged to provide the barcode number and the new storage location of the relocated container to the applicable chemical custodian or the chemical management POC.

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| Chemical Management POC | 2. As requested, assist in arranging transfer of chemicals between facilities. |
|-------------------------|--|

Chemical Custodian 3. When receiving transferred chemical containers with an existing CITS barcode, forward the barcode number, the name of the chemical, and the new storage location to the chemical management POC.

Chemical Management POC 4. Update the CITS database as needed.

4.3.4 Requesting “Fixed Inventory” Status for a Chemical

CITS has a limited option called “Fixed Inventory Item.” This option permits the tracking of materials that are part of standard or stock inventories as an unchanging inventory item instead of tracking each individual container (e.g., compressed gas cylinders in a gas dock or a supply of Simple Green™ in a stockroom).

There are specific conditions that must be met in order to use the “Fixed” option.

Chemical Custodian 1. Contact the chemical management POC to request the assignment of a fixed inventory item barcode.

Chemical Management POC 2. Determine if the chemical and the conditions are suitable for fixed inventory item status.

- If fixed inventory status is approved, notify the chemical custodian of the approval, obtain needed information to set up fixed inventory item in CITS, provide chemical custodian with the assigned barcode label and a copy of fixed inventory information entered into CITS.
- If fixed inventory status is not appropriate to the conditions, contact the requesting chemical custodian to determine an appropriate alternative.

Chemical Custodian 3. Maintain a list of fixed inventory items at or near each storage location that includes the following information.

- Barcode number
- Product name
- Hanford MSDS #
- Container size with units (volume or weight)
- Maximum number of containers

A copy of a CITS report highlighting this information, a log sheet such as the example in Attachment E, or other suitable method may be used for this purpose.

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4.3.5 Performing a Facility Chemical Inventory

(7.1.4, 7.1.5, 7.1.6, 7.1.8, 7.1.14)

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|-------------------------------------|--|
| Chemical Management POC | 1. Ensure a facility chemical inventory is completed at least annually by the end of November, in support of the Hanford Site efforts to prepare the following Emergency Planning and Community Right-to-Know Act (EPCRA) reports: <ul style="list-style-type: none"> • Tier II Emergency and Hazardous Chemical Inventory report required by 40 CFR 370 and • Toxic Chemical Release Inventory report required by 40 CFR 372. |
| Chemical Management POC or delegate | 2. Use the barcode reader to scan the chemical container barcodes in performing the chemical inventory. |
| | 3. If un-barcoded chemical containers that meet the criteria for tracking within CITS are found, barcode the container(s) and enter applicable container and storage location information into CITS. |
| Chemical Management POC | 4. Update the chemical inventory items in the CITS database. |
| | 5. Document any issues identified during inventories of chemical storage areas on a PER in accordance with TFC-ESHQ-Q C-C-01 to track corrective actions. |

4.4 Final Disposition of Chemicals

(7.1.7, 7.1.10, 7.1.11)

Final disposition includes consumption, re-distribution, recycling, and waste disposal.

This procedure does not cover waste management systems, such as waste accumulation areas and treatment, storage, and disposal facilities; however, it does provide for information transfer to these systems.

- | | |
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| All Employees | 1. If the contents of a barcoded container are fully consumed, manage the empty container in accordance with CH2M HILL waste management procedures. |
| | NOTE: To help maintain the accuracy of the chemical inventory, employees are encouraged to provide the barcode number of the empty container to the applicable facility chemical custodian or the chemical management POC. |
| | 2. When chemicals are no longer needed or are non-usable (e.g., expired, damaged, degraded), contact Waste Services for guidance. |
| Chemical Management POC | 3. As requested, use CITS to identify useable but no longer needed chemicals as available for redistribution to other Hanford site users. |
| | 4. If an available chemical is requested by another organization, as applicable, assist in the transfer of ownership. |

5. If a barcoded chemical container is to be re-distributed from a TFC facility or a sub-contracted organization performing work for the TFC, ensure the tank farm specific chemical barcode is removed or defaced.
- Chemical Custodian
6. If possible, provide the chemical management POC with the following information:
- Chemical container barcode number
 - Disposition action (i.e., consumed, transferred to another CH2M chemical custodian, transferred to Waste Services).
- NOTE: A log sheet like the example shown in Attachment C (or another suitable method) may be used to provide disposition information to the chemical management POC.
- Chemical Management POC
7. Update the chemical inventory in the CITS database as needed.

5.0 DEFINITIONS

Layering. A condition where a liquid separates into two or more layers with a distinct boundary (e.g., oil and water).

Hazardous Material Storage Facility. A building, a portion of a building, or exterior area used for the storage of hazardous materials in excess of exempt amounts as defined in NFPA 1, "Uniform Fire Code."

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6.0 RECORDS

Ensure the chemical inventory data, data certifications, and contractor certifications (as applicable) that are submitted in support of the Hanford Site efforts to prepare the following EPCRA reports are managed as record material:

The following records are generated during the performance of this procedure:

Record Description	Vital Record Y/N	QA Record Y/N	QA Record Retention L/NP	NARA Retention Schedule	Other Retention Requirements	Records Custodian
Information submitted for preparation of EPCRA Reports: - Chemical inventory data - Data certifications - Contractor certifications (as applicable)	N	Y	NP	ADM-17.32a	N/A	Chemical Management Lead

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Acquisition and receiving activities are carried out as part of the procurement process. Records generated as part of the procurement process are managed in accordance with the applicable procurement procedure and [TFC-BSM-IRM DC-C-02](#).

Information added during the addition and update of the Chemical Inventory Tracking System (CITS) database while performing such activities as receiving, storage, or inspection of reactive and time-sensitive chemicals are not record materials. This database can be used for general reporting of day-to-day operations.

Data generated during the inspection of reactive and time-sensitive chemicals is not record material. An informational copy of the inspection results will be kept in the CITS database.

7.0 SOURCES

7.1 Requirements

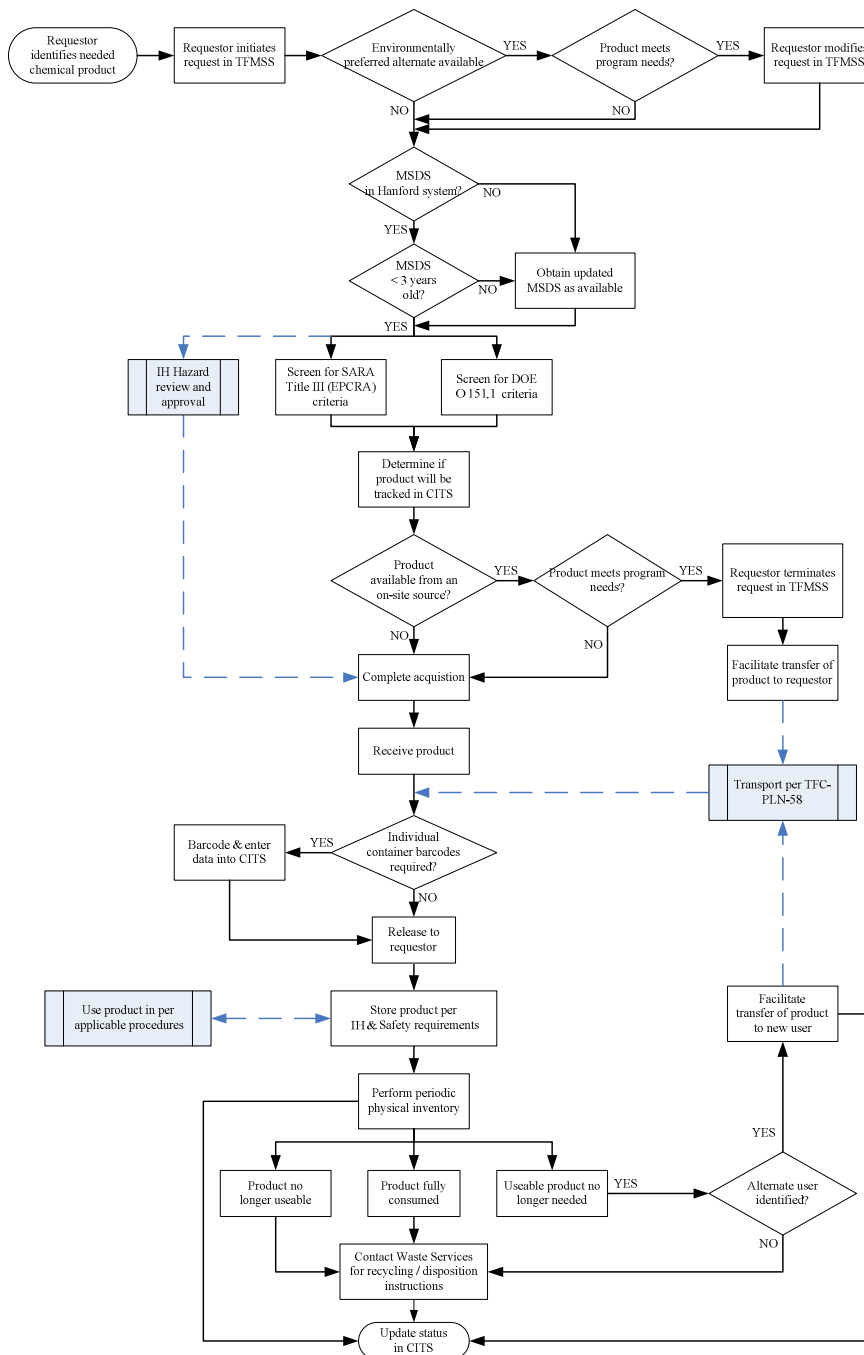
1. 10 CFR 851, "Worker Safety and Health Program."
2. 29 CFR 1910.106, "Flammable and Combustible Liquids."
3. 29 CFR 1910.1200, "Hazard Communication."
4. 40 CFR 355, "Emergency Planning and Notification."
5. 40 CFR 370, "Hazardous Chemical Reporting Community Right-to-Know."
6. 40 CFR 372, "Toxic Chemical Release Reporting Community Right-to-Know."
7. 41 CFR 101-42, "Utilization and Disposal of Hazardous Materials and Certain Categories of Property."
8. DOE O 151.1C, "Comprehensive Emergency Management System."
9. DOE O 420.1B, "Facility Safety."
10. DOE O 450.1, CRD "Environmental Protection Program."
11. Executive Order 13101, "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition."
12. ORP M 420.1-1, R1, "ORP Fire Protection Program."
13. RPP-MP-003, "Integrated Environment, Safety, and Health Management System for the Tank Farm Contractor."
14. TFC-PLN-58, "Chemical Management Plan."

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7.2 References

1. 40 CFR 247, "Comprehensive Procurement Guideline for Products Containing Recovered Materials."
2. ATS-310-4.05, "222-S Laboratory Complex Chemical Hygiene Plan."
3. ATS-LO-150-063, "Management of Reactive and Time-Sensitive Chemicals in the Laboratory."
4. ATS-LO-150-062, "ATS Chemical Management."
5. DOE G 151.1-2, "Technical Planning Basis – Emergency Management Guide."
6. TFC-BSM-CP_CPR-C-01, "Purchasing Card (P-Card)."
7. TFC-BSM-CP_CPR-C-05, "Procurement of Services."
8. TFC-BSM-CP_CPR-C-06, "Procurement of Items (Materials)."
9. TFC-BSM-CP_CPR-C-18, "Material Receipt, Storage, Issuance, Return, and Excess Control."
10. TFC-BSM-CP_CPR-D-01.2, "Recovered/Recycled Materials."
11. TFC-ESHQ-FP-STD-03, "Flammable/Combustible Liquids."
12. TFC-ESHQ-FP-STD-13, "Fire Protection Requirements for Hazardous Material and Used Waste Absorbing Material Storage."
13. TFC-ESHQ-IH-STD-11, "Carcinogen Control."
14. TFC-ESHQ-S_IH-C-02, "Hazard Communication."
15. TFC-ESHQ-S_IH-04, "Permit-Required Confined Space."
16. TFC-ESHQ-S-STD-08, "Safety Inspections."
17. TFC-ESHQ-S-STD-25, "Storing, Using, and Handling of Compressed Gases."

Figure 1. Chemical Management Process.



ATTACHMENT A – TANK FARM CHEMICAL MANAGEMENT POC ACQUISITION CHECKLIST
(7.1.4, 7.1.8, 7.1.10, 7.1.11)

The following checklist is intended as an example guide to assist the Chemical Management POC with completing the designated approval for chemicals. Activities may be performed out of sequence as appropriate. Confirmation of completion of tasks such as described in the example is provided by the approval of the BOM/MR in TFMSS.

Chemical Management POC Approval Checklist	Yes	No	N/A
A. Is there an MSDS published or otherwise developed for the product? If no, the product is not defined as a chemical and does not require chemical management approval.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Is the product's MSDS available in the Hanford MSDS database?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If not available, has a current MSDS been submitted to the Hanford MSDS Administrator?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If available, is the MSDS number listed on the TFMSS order form for each chemical item?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Has more than three years passed since the MSDS has been updated in the Hanford MSDS database?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If the MSDS is more than three years old, is an updated MSDS available from the manufacturer or vendor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If available, has the updated MSDS been submitted to the Hanford MSDS Administrator?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Is there an identified environmentally preferable alternative (EPA) for the requested product?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Was procurement consulted to determine if the product has been designated as subject to requirements for recycled/recovered material as described in TFC-BSM-CP CPR-D-01.2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If available, was the requestor contacted to verify the alternative product will meet the user requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Is the chemical identified as non-hazardous in accordance with 29 CFR 1910.1200 ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If the chemical is non-hazardous, note that the chemical does not require barcoding in the Special Instructions section of the MR/BOM and approve the request.			
• If the chemical is hazardous according to the criteria, continue with the checklist.			
E. Has the chemical product been screened for EPHA applicability in accordance with DOE G-151.1-2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If YES, EPHA quantitative analysis is not required.			
• If NO, EPHA quantitative analysis is required. Return the BOM/MR and notify the requestor to contact the project/facility Emergency Preparedness coordinator in order for the necessary evaluations and planning to be performed.			
F. Is the product a flammable or combustible liquid as defined in TFC-ESHQ-FP-STD-03?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If flammable/combustible, is it a common use product as defined in question 5 and intended for use in an office setting?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• If flammable/combustible, is it an industrial/professional use product or a consumer product stored or used in quantities greater than office use settings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ATTACHMENT A – TANK FARM CHEMICAL MANAGEMENT POC ACQUISITION CHECKLIST
(cont.)**

Chemical Management POC Approval Checklist	Yes	No	N/A
G. Is the chemical a consumer product that will only be used in the workplace for the purpose intended by the manufacturer or importer of the product, and the use will result in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended? (ugly but matches statement in 1910.1200)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Is the chemical is reportable under SARA Title III provisions in Sections 311/312 or 313?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Is the product available from an On-site source?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Has CITS been checked to determine if the requested chemical is in current inventory assigned to the requesting organization or available for redistribution from another organization? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Has the Fluor Hanford Excess Property Bulletin Board been checked to determine if the requested chemical is available for redistribution? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> If the chemical is available, is the material usable (e.g., not expired, poor condition)? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> If the chemical is available and usable, is there sufficient quantity to meet the requestor's need? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> If the chemical is available, have you verified it is acceptable to the user? <ul style="list-style-type: none"> If the user verifies the available chemical is acceptable, return the BOM/MR and assist the requestor in arranging transfer of the chemicals and continue with the checklist. If existing inventory is not acceptable, continue with the checklist. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Will the product be tracked in CITS? <ul style="list-style-type: none"> Yes, continue to step K. If the chemical will not be tracked, go to Step 10 in section 4.1 of this procedure. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Has storage location information been provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L. Has a chemical custodian or responsible person been identified? <ul style="list-style-type: none"> Once checklist complete, go to Step 11 in section 4.1 of this procedure. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>